



**U.S. Coast Guard/American Waterways Operators
VESSEL SAFETY ALERT 02-98**

**IMPROPER LOADING OF GALLEY FREEZER
CAUSES MAJOR FIRE ON TOWBOAT**

Background: The Coast Guard/AWO Vessel Safety Alert program was created to provide timely notification to mariners of "Lessons Learned" from marine casualties or incidents. This program along with the TIIR (Towing Industry Incident Report) have been established to help prevent towing industry accidents by applying Prevention Through People (PTP) principles which include educating mariners.

Incident: While underway in the Gulf of Alaska, a fire broke out on a towing vessel. The seven crewmembers donned their survival suits and were safely lifted off by a Coast Guard helicopter after they were unable to control the fire. The boat was towing a barge load of fertilizer in 8-foot seas.

Findings: The primary cause of this fire was improper stowage of food in the galley freezer. Prior to leaving port the cook over filled the freezer with food, blocking the freezer circulation fans. This caused the compressor to operate continuously, which overheated the electrical circuit. This led to an arcing of the bulkhead receptacle wiring and ignition of the bulkhead.

Recommendations: In addition to improper loading of the galley freezer, there were some other lessons learned from this incident:

- 1) The refrigerant used in this freezer (MP39) did not have the same cooling ability of the old, and now unavailable R-12. Extra precaution should be taken to ensure that air circulation in a freezer chilled with MP39 is not impeded with frozen stores. Also consider using a more efficient refrigerant.
- 2) Written loading guidance should be posted on the outside of every freezer to inform cooks not to stack food too closely to circulation fan vents.
- 3) A need to carry extra survival suits in the pilothouse was identified when smoke and fire blocked some crew member's access to their rooms where the suits were stored.
- 4) Crewmembers should practice donning their survival suits periodically to ensure they fit properly before an emergency arises.
- 5) Smoke detectors should be installed in all state rooms.

